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## SUMMARY KEYWORDS

joint, bones, hinge joint, flex, rotate, synovial joints, flexion, movement, vertebrae, joins, proximal, extend, wrist, metacarpal, extension, glide, carpal bones, planes, book, fingers



00:00

It within it bathing and nourishing those two bones, or sometimes three bones, but at least two bones each each end of the bone where it joins the other bone is lined with a nice glassy layer of whites or



00:18

articular cartilage and happens to be Highland. There's lots of different types of cartilage but it's Highland cartilage, not a big deal. You don't need to know that. But in case you were curious, I'm really nice and smooth and glossy. Keeps the friction down between those two bones.



00:36

And how many layers are there of the synovial cavity?



00:44

membrane? Yeah, the membrane in the outside.



00:49

That's right, but flexible, thinner interlining membrane, and then the fibrous capsule, the outer lining of that synovial joint.



01:04

Okay, some synovial joints will have structures that help improve some synovial joints will have like Bursa



01:16

and, and or she and so I have, who do I have, I have



01:29

a couple of books here that you can take a look at. I don't know how to do this now, the book thing I'll just maybe put it on the tables and y'all can take a look at them.



01:43

So the spine section is really cool. They have ligaments all around the spine. They're short ones, and then there's long ones. So I'm just going to keep this out on the table and



01:57

when you want to, you can Take a look at these normally I pass them around, but I guess I shouldn't do that now. And then I'm going to have a picture of



02:11

the,



02:14

the sheets, the tendinous sheets, and that I have that bookmarks. And then I'll show you I'm going to try to find a Bursa and show that show you that so you can take a look at these whenever and, and now we have to go through the scenario synovial joint types



02:41

and how many synovial joint types are there? There are. So there's



02:48

six different types of synovial joints. All of them are movable. We're going to move more than others and we're going to go through and I will give you examples of all of these joints. Your book gives you examples of all of these joints also. And then, and then when we're done, we'll go through actions. So I'll just hold this up, you can see in blue, those are all good attendance sheets that cover the attendance. And then you're going to take a look at the box. And then I would just maybe wash my hands when I'm done looking at them.



03:30

Okay, so



03:34

we're going to go through all the different types of synovial joints.



03:45

And here's what they look like. So we have the ball socket joint. It is the most movable of all synovial joints. Where do we find both socket joints, shoulder hips, head



04:01

Shorter hips. So there's the picture of the shoulder, and then we've got the hips.



04:07

And that's the only two places pretty much.



04:11

Yes. Technically Yes. There is a typical ball socket joints.



04:20

At the word the humerus needs the radius.



04:26

But it's, it's, it's like a ball and socket. But there's no there's not at all that.



04:34

So, well, soccer joint. What do you think about fabric joints? Move one, two or three points, three, three. Yeah.



04:50

All three planes. So we can flex our shoulder. We can extend our shoulder in the sagittal plane. We can That's an add on. It's the frontal plane, we can rotate in and out word in the transverse plane.



05:12

Oh target, hip and shoulder.



05:17

The next one on your list is a hinge joint.



05:23

So a hinge joint



05:26

really only allows for flexion and extension.



05:31

So it's like a convex bone fitting into a trough shaped surface of another bond.



05:39

hinge joints. All we allow for flexion and extension sagittal plane.



05:52

So sagittal plane that's right.



06:02

That's right.



06:10

hints joint example. So they're giving you the elbow joint.



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fingers. So here is here are my metacarpal bones in the palm of my hand



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dorsal surface Palmer surface hands.



06:31

We have five metacarpals in our our hand bones metacarpals my metacarpal bones in my hand meet up with the proximal finger joints and my digits. And that is not a hinge joint that we can flex we can extend we can add up and add dots. So that's not a hinge joint. That's going to be the next one but the battle carpets are the big ones. So listen. So, this is not a hinge joint. This is a hinge joint and this is a hinge joint. Well, Angie, well Angie phalanges phalanges make up the bones in your fingers between the bones and your fingers. There's a joint here, and there's a joint here. These only flex and extend, flex and extend this knuckle joint between your metacarpal and your proximal phalanges. That's a different joint we're gonna go we're gonna get there, okay. So when we say finger joints, we mean this joint and this joint. That makes sense. Yeah, we do not mean our knuckle joint, the different joint.



07:46

So fingers,



07:50

finger joints, knees, and knee is a modified hinge joints.



07:59

Monitor hinge joints modified because when we flex our knee, we can also rotate that knee a little bit.



08:10

So



08:12

same thing with our we stand on the palms of our feet. We have metatarsals. Our metatarsal is metatarsal, our toe bones. That's not a hinge joint, but the toe bones themselves. In between the toe bones. Those are hinge joints. So fingers and toes. Toe and finger joints. Knees modify hinge elbow. This is the book example. Do you think of anything else?



08:51

Our ankle joint we can only flex and extend there.



08:55

Hey.



08:57

So we move on. We've got both sides. We've got hinge. Oh and now we have the next one on your list is of lighting right or plain joint says gliding your plane joint. So two flat surfaces glide, five glide along each other to flat surfaces. And, um, we've got, for example, the

Carbo bones and the parcel bones. So the carpal bones are where it's in your wrist, and the tarsal bones are in your ankle. So a little ankle bones and all the little wrist bones side glide along each other. And it creates a little bit of movement. Not as much as bone sockets and much and hinge joints, but still creates



09:52

some movement



09:55

that enjoys joints wrist ankle.



10:03

ankle bones glide along one another. And



10:09

is that confusing? Because I have ankles and I have ankle.



10:15

Yes, yeah. Yeah. So let me be more specific



10:24

between the talus bone



10:29

and tibial bone.



10:35

That's a hint enjoy.



10:40

The talus is part of all of the ankle bones. So let me show you.



10:51

Here is my talus. Here is my tibia. My ankle joints can stent and the ankle joint can flex happening right here. All these other little guys are also tarsal bones and they all slide glide along one another. Okay, but it happens to be the one specific ankle bone metatarsus joining up with the tibia that allows for flexion and extension of the ankle, and then we ended up calling that plantar flexion dorsiflexion which is a whole other



11:32

annoying part.



11:36

Okay, so, from the wrist,



11:41

the wrist bones and the ankle bones themselves.



11:47

They all slide glide along one another in the wrist and or in the ankle. Another place where you'll find gliding joints is what you're And you're right, yeah, I'm fine. When one vertebrae joins up with another vertebrae, they one flat surface joins up with another flat surface, little flat surfaces of the vertebrae. And those are all set joints and they slide glides. So would that be a transverse plane or a fragile plane?



12:25

For gliding joints? Oh, um, they're kind of





12:30

they're not really.



12:35

gliding joints aren't specifically in one plane, they just like slide glide, so there's not like big sweeping movements. So they're not axial. Sorry. So



12:49

they're not really necessarily rotating or,



12:52

well, here's what they're doing or a B ducting or a ducting, right? Yeah, yes. And



13:01

However, for instance, in the case of the vertebrae, when all these little rosette joints, these little gliding joints without joints, and all these little gliding joints line up along the spine like they do on both sides to connect one vertebrae with the one above it below it, they all create a little bit of distance, just a little bit, so that we can



13:27

create these bigger overall sweeping movements on the spine.



13:33

So like a train, train, so all of these little, little little sliding blade movements along the vertebrae.



13:46

There, you know, there's not a whole lot of movement per vertebrae, but when you add it all up, there's more movement



13:57

and then



14:01

Yeah, I'm gonna stop there for now, and more to say about that, but I am going to hold it. And then I'm gliding joints. So between the little carpal bones themselves two little ankle bones themselves between the vertebrae.



14:18

Probably a couple more that



14:21

I'm not thinking of. So have you already talked about solder joint? Nope. Okay.



14:27

Oh, go ahead.



14:28

Um, so if the gliding joint doesn't really move that much, it would be like what planar movement? Would you consider it? So?



14:39

Yeah, cuz we have planes. We have definitions for the other two. So that's why I'm confused about gliding is because, like, does it move in all three planes? Like so? Yeah, it can. It can. It can. Okay. So, um, but it's not like it's not, it's not like I have this vertebrae in this vertebrae. That can move in all the planes. It's the overall spine. Yeah, with all the little segmented movements are creating flexion and extension in the sagittal plane. And then and then lateral flexion. And I guess that would be the frontal plane and then rotation in the transverse plane.



15:24

That is, it's the cumulative effect of all of those little movements creating a bigger movement when we're talking about the spine.



15:35

And then when you're going back to the wrists and the ankles, same kind of thing, like those little and those guys are causing us to be able to flex and extend and also to rotate. Is that what you're saying? Yeah. Okay, those these little guys in the wrists and ankles, those are all really just sliding and gliding. There's really no big sweeping we can't create sweeping these movements and the carpals and Second cannabis fine. So then what are they? They're so they're just non axial, they're, they're, they're, they're creating a little bit of movement. Okay, there's going to be another joint that we talked about coming up their wrists, one of the, a couple of the wrist, carpal bones. joining up with the radius is what's allowing for flexion and extension of the wrists. So all these little guys are in here, just to help with that overall, bigger reporting.



16:32

If we didn't have movement between our wrists bones, we, we probably wouldn't have as much movement in flexion and extension. So it might be an evolutionary thing.



16:42

No, no, it was no. What I'm saying is



16:49

if I, here's where I'm flexing and extending my wrist really right there. And if I didn't have movement, and between all these little guys, it this would feel a lot stiffer and I wouldn't be able to move it as much. Or like if you had it move down you would also be able to move your fingers. Like if it was totally like, you wouldn't be alone with your fingers. So this one is maybe



17:27

so I know they're good ones to hinge glide ellipsoid is the next one. Sometimes you'll see

this listed as Lipsyte. Sometimes you'll see it listed as conda Lloyd and that's why I have both of those written down your book just as conjoin. But sometimes you'll be reading other books and they'll say a conga line and you'll be like,



17:48

Whoa, what's that? Yeah, and the book says candlelight.



17:51

Yeah. So I try to write things down both ways. When I think you might come across it that way. ellipsoid convoyed, same same treatment. words mean, same thing.



18:09

It's weird. And



18:12

because of Lloyds joints, no, wait.



18:22

This will allow for movement and two planes.



18:33

Kind of our joints will allow for flexion and extension



18:43

and



18:47

a reduction and reduction. We still have to go through all of these movements.



18:57

So that's two planes of movement. flexion and extension a reduction in reductions. So, my knuckles were my metacarpal bone. Meet my proximal finger bones. That's a condoid Lloyd joint, we can flex, we can extend, we can adducts and we can add up.



19:24

We can do that at the metacarpophalangeal joint, which is right here. That's your metacarpal joint.



19:34

We can also do that the wrist joints, the radial carpal joint. So the radiocarpal joint is a condoid or ellipsoidal joint. The carpal joints themselves are gliding joints, that make sense. So all the little wrist bones



19:57

between each of them is a little gliding joint.



20:01

The the wrists, the carpal bones that joined up with the radius. That is the is the wrist joint that allows for flexion and extension.



20:13

And then also adduction of the wrist and a reduction of the wrist.



20:19

misunderstood I thought that these two knuckles could only flex and extend, but that they're ellipsoidal joints which can also add up and add up doesn't make sense to me. Yeah, that's because it's you're not saying it right. Okay.



20:33

10 joints only flex and extend your fingers. Here you have the finger bone, finger bone, finger bone.



20:48

You have three finger bones per digit. Your thumb only has two



20:54

between these joints and these joints of your fingers. Those are your constraints, you can flex and extend. Here's our bones in the palm of our hand. Those are our metacarpals that's where your knuckle joint is.



21:13

Oh, I just saw your line is different. Okay.



21:15

wagyu accent AB Dr. Adams.



21:19

Got it that's happening here. I'm listening. I thought those were the world's longest fingers. I'm totally get it now. All right, awesome. Thanks.



21:32

So and ellipsoid joint allows for flexion and extension, a reduction in reduction examples. Your book here risks joint radiocarpal.



21:50

That's Irish joint



21:53

and not a carpal phalanges metacarpophalangeal. That's where your knuckles are.



22:05

Would you call the scientific term for the



22:10

knuckle one



22:13

radiocarpal medic Lambo land deal where your metacarpal bones meet your finger bones. The bones in the palm of your hand meet your proximal finger bones are phalanges.



22:38

This also the same thing for your metatarsal stuff first, like your knuckles, your metatarsal meet your proximal phalanges of your toes. Yeah, it's the same.



22:58

Okay, and then we have a second joints, so joints



23:08

the convexity of one bone fitting into the concavity of another bone. It's kind of looks like a saddle like a saddle.



23:18

It is



23:21

kind of like it's similar to the ellipsoid, but just a different shape. So we only have a couple of examples of where you will find a saddle joint in the body. And the first example is where Oh yeah, your, your book gives you the example between the proximal



23:48

no metacarpal of the Sun and the one just one specific carpal bone. This one specific carpal bone happened To be



24:05

in the distal on the distal, distal and lateral, we have two rows,



24:16

two rows of carpal bones. And this carpal bone. This is a distal row and it's lateral because some of them side and so this carpal bone joins up with the metacarpal bone that goes to the thumb. And that's our saddle joint. And that allows us to do stuff with our thumbs that we wouldn't be able to do otherwise.



24:44

So that's our title joint. Here's another example



24:50

of a saddle joint



24:53

between the



24:55

back apple and stern that's another satellite





25:07

What are the planes?



25:14

The planes of movement, let me see, this one is a little tricky. So, um, it can flex and extend. Maybe up to now that's,



25:25

that's really what it does. But the thumb, it can immediately rotate about 45 degrees. And that medial rotation is a combination. Don't think that your thumb can like oh, it's like bone topic is immediately rotates. It's a combination of a bunch of different actions that



25:44

I'm not going to go into right now. But um, just know that it it. saddle joints allow for



25:53

flexion and extension



25:56

a reduction in adduction



26:03

And then the thumb can immediately rotate. I hesitate to say that and I want you to get confused.



26:14

If you want to you can put a pose that would that might make more sense.



26:21

my



26:24

Copic eular sternoclavicular joint is a saddle joint. It elevates depresses. IT pro tracks and retracts when my scapula upper body rotates to the cloud goes along with it. When my scapula down really rotates my clavicle goes along with it. He show on the skeleton, the the, he said the clavicle and stern, like where am I cloudbees my sternum. This is a saddle joint This happens to be that one place where there's a disc also for a member of the synovial joint features that some some joints have. There's a little disc in there. And when I when I move my scapula, my clavicle will go with it so my clavicle can elevate and depress, move forward and back. And then when I upwardly rotate my scapula on a downward they rotate my scapula, my clavicle do that same



27:32

kind of a rotation once upon a while, my upward and downward



27:50

and then I think we have one last joy right give me joy.



28:01

Perfect joints, you're only gonna see two of them. And so in addition to



28:11

so I want to explain this. And in it, Remember when I said that we have some cartilaginous joints between the vertebral bodies.



28:21

And then we have these little cassette joints between the two vertebrae.



28:27

In addition to that, they we have



28:31

this one pivot joint and our neck and it's between C one and C two.



28:39

And here next I circled it. Here's cervical vertebrae number one, here's cervical vertebrae number two. cervical vertebrae number two has this little projection and kind of looks like this, this. So we have um, we have this little projection coming off of C two and it fits into C one I just like this really. And it allows us to rotates. So it pivot joint allows for rotation.



29:13

And that's it. It's not like the bone socket where it allows for rotation and flexion and extension and a reduction notice, it just allows for rotation.



29:25

This way when we come like



29:26

with our head, is that from our vertebrae and not from our,



29:32

like what was able to do



29:35

all of the set joints line we're having a while for one another, this little gliding joint. Yeah, all those little gliding joints allows to do this. And this and this, that pivot joint is really like when I rotate my thoracic region and my lumbar region. I can rotate pretty good. I can

really rotate my neck and it could be joining The first two cervical vertebrae



30:04

So, so there's none in the back till I eat him. Nope. Nope. No, it's all coming from your spine. Yeah



30:19

um



30:22

what another one what's the second Yeah. So then the second one is so between C wanted to see for cervical one is the first cervical



30:34

choose the second cervical vertebrae



30:38

that join and then the other area is where we're on the proximal



30:52

joint between the radius and the ulna. The radius rotates around the ulna in between. It's a pivot joint. So C one and C two and the radial



31:10

ulnar joint



31:19

radial ulnar joint.



31:21

And



31:26

so when we say that the radius rotates around the ball now



31:35

we're going to call it pronation and supination.



31:41

All right, so that's it. Those are the six joint types that fall under the synovial heading. They all account for



31:57

varying degrees in movement.



32:00

They're all these are all the most movable joints that we have in the body, and they're mostly in the limbs.



32:08

But not not exclusively.



32:13

Okay, um,



32:17

definitely know the types and definitely have an example



32:22

for each one.



32:30

And then we have to go through



32:35

a bunch of movements and I have all the movements listed on this handout. And these movements definitely spend some time becoming familiar with the movements around all these joints and you will get to know them and become more are familiar with them as you



33:01

go.



33:04

So



33:08

let's, let's stand up, and let's get to a circle in the back of the room and go through some actions.



33:40

And all of these



33:44

actions



33:45

are in your truck guides. So I'm on this page where it has the synovial joint types, I think after



33:53

that are somewhere right around there.



33:56

It'll be like scapular action and shoulder passion



33:59

and knee



34:00

And it goes through every joint. And then it shows you all the actions.



34:05

So it's super helpful.



34:08

Um, okay, so we have



34:13

all these movements



34:16

and we can sue the feeling let's start with our, with our job. Do you know the name of the jaw joint



34:27

temporomandibular joints because the mandible and get rid of the region joint joint up with the temporal bone



34:36

right along. So



34:39

what we do in our job?



34:41

We can grow tracts contract and we can retract Yes, yeah. So if I retract if I take my statement back and retracting so that helps me remember that my job comes back with retract my jaw comes forward protraction Back with retraction, so that's gonna be their job. Yeah, we can elevate, we move it up, then we need to press move it down. And then one more. Yeah, we can do a good job inside the size. Okay, so that's what we can do with our job. Our Jonathan modified Hinch



35:19

also



35:21

pick another joints, another joint, shoulder, shoulder joints, the joint between our arm bone and our shoulder blade. What are the anatomical terms for arm bone shoulder blade, right? Yeah.



35:43

scapula. Yeah, so this is where our ball and socket joint is. This is our shoulder joint over you as our shoulder. We can flex





35:53

we can extend or we can add



36:01

And we can add up and then we can rotate our shoulder joint in towards the midline  
medial rotation



36:09

and then we can move it rotate it outward lateral rotation.



36:15

And



36:18

so people will say, medial rotation. Some people will call this internal rotation



36:23

because we're rotating towards



36:25

the impact. Some people will say lateral rotation or external rotation.



36:35

When



36:36

Sorry, I have to back up and describe a couple of things.



36:39

When we are at ducting.



36:45

We are taking a limb further



36:47

away from the shop,



36:50

but in the frontal plane,



36:52

because I can say take care of them away from the trunk in the sagittal plane and the flexion. So when we take a look and move it further away from



37:03

or abducting like if you're being abducted by aliens or pancakes away, right?



37:09

abduction and adduction



37:12

something to me. Especially mumbled, especially when I can't hear well, so you'll hear me say AV duct instead of add duct just so that you're clear and then you'll hear me say add up. Some people say add up and add duct and in that maybe the ad so funny to me so you'll hear me say AB dot and then you hear me



37:35

say ad.



37:37

So what I'm adding to, I'm breathing a little closer to Trump or the midline. So add on thing adding.



37:47

I live back in



37:49

a B ducting taking my limb away from Okay.



37:54

Why should I expect him so I mean you're clearly when you're moving your heart Okay, and standard role playing. Right? Because it's a left, right. So, if you move it forward, that wouldn't be that's extended, that's not extension, nine expression.



38:15

And so and so, here, so I'm gonna say complete reflection in the connection. Okay?



38:22

So, um, when so where's the definition? I think there's a definition in the trophy. I looked up the definition of flexion. And it was like, What did it say? It turns out in where I live, and then I looked at the definition of watching somewhere else.



38:42

Besides those two together.



38:46

Also, fetal position, everything's in flexion. Right? So my neck is flexed, my shoulders are flexed, elbow flexed, reflect flex fingers, flex trunk, like nice, like, hit play, everything. flexion and other fetal position. So now when I extend



39:07

out like an extension,



39:09

or say out



39:11

everything is everything is longer, right. So think of an extension cord. Gotcha. So the only thing that doesn't really



39:20

line up in my head was flexion. As far as softer



39:23

side coming closer together. Yeah,



39:28

so I said remember, well, this is flexion flexion, slash this flexion. Extension, extension, tension, extend risk fingers.



39:43

When you wet your arms, you pull up



39:47

your leg so it's so it's so hard.



39:51

It's like the flowers



39:51

and plants that close up at night open back up during the morning, lads



39:56

again. Yeah, yeah. Okay. Another little thing that trips people up is the knee flexes. Everything else flexes forwards. So the knees kind of interesting



40:15

limits Didn't



40:16

we talked about the other day when your anatomical position here and extended position? Yeah,



40:20

everything's pretty much an extension. That's right.



40:25

Yeah, some of these are just going to be like, wait, what some of them is going to be super



40:29

August. Some of them



40:31

look it up in the book. That futuro guide is cool, great pictures



40:35

or actions.



40:36

Hey, another thing we're thinking about flexion and extension.



40:41

When we plant our foot into the ground, we are plantar flexing. When we bring our post towards our Shin, we are dorsa flexing when I know so I know So when I plant and here's what I do, I because we stand on the palms of our feet, watch what happened spike into my hands and my feet. I'm playing you're flexing when I come into anatomical position and I play her flat



41:16

right? So that will help you



41:19

when I look what happens when I dorsiflex my feet and upon ID now of course a black thing will then come into anatomical position.



41:32

So that helps me I don't know if that will



41:35

but you just have to relax.



41:38

Enterprise for supply chain



41:41

tension, okay, make sense? And then and then use figure to figure it out. Tell your friends.



41:50

Explain it to them



41:51

because they're like what



41:53

we have to explain second helps so



41:59

many of us enjoy Where we can only flex and extend elbow.



42:05

elbow joints we can only flex and extend elbow joints around safely.



42:12

And our knees we could flex and extend. When we flex. We can I rotate a little bit, so I've got mine If I change or I see.



42:26

Red, red



42:28

wrist? Oh, yes, yes.



42:32

So we can do everything.



42:36

Yeah, I haven't blamed you here. I'm a middle aged lady here proximal Middle School. My family has to



42:46

phalanges proximal,



42:50

distal,



42:52

pinch joint



42:55

of the thumb. How many hinge joints? One how many of the favorites? Yeah, sure. proximal or distal, proximal, proximal interphalangeal joint inter and between phalanges blendy blendy blendy. Joint life isn't the extent of it, okay. proximal joy,



43:15

this joint,



43:16



proximal interphalangeal joint



43:18

and between the phalanges interplant to distal, inter collegial Why? Because you're super romantic and in between proximal interphalangeal



43:31

that will come



43:32

next walk over that right now you will be able to do a section



43:40

and where's another place where we can



43:45

only back to the extent we can do with our fingers?



43:50

We can put sacrifices or stuff like that ain't go Yeah, we're chose yeah hi



44:02

What can we do between all of our little carpal bones and all of our ankle bones?



44:09

You know, that we can find glide not about it. And where where can we flex Amanda? Where can we flex and extend? Maybe you can add that?



44:23

Yeah, so my radio ball, it's pretty wide here. It takes up a lot of space along the carpals more so than the owner bone. So we say it's the radiocarpal joint.



44:38

So my radiocarpal joint complex and extend



44:44

it can adults and



44:52

Or else what else can we do?



44:59

Show mercy Yeah, but we can also immediately just that's



45:07

not a purple, the purple, non purple. So yeah that so that metacarpal joining up here or a metacarpal joining up here.



45:18

Just Oh



45:18

yeah, so that joins up with a carbon blade you'll join



45:23

for knuckles are



45:36

your clavicle before? Yeah, so your clavicle is joined up with your scapula. So



45:46

hey, so your clavicle joins up with your scapula and it's your scapula that's moving there because your clavicle is joining up with your scapula, your clavicle kind of go along for the ride



45:59

and my I scapular, my staff who lives on the rim page, and we'll talk about this in more detail later. So the joint is the scapulothoracic.



46:12

lives on the graphics.



46:16

We'll talk about that later. My scapula is going to elevate and depress my scapula move forward



46:25

into protraction and then they can also retract and then I sat when I raise my hand, and I know the answer. I'm racing. I'm moving my shoulder joint. Yeah.



46:39

So my staff upwardly rotate.



46:43

So my scapula has actually



46:45

elevates the presses protract retracts awkwardly rotates down, takes somebody my thought was doing the same thing. My clavicles doing



47:02

Here's the scapula and then it's also doing it here



47:08

and then there's the other saddle joints



47:11

where my medic carpal my tongue meets this carpal



47:16

bone



47:18

that I can Lex I can flex and extend hey



47:28

I don't



47:30

and then I can oppose here this



47:31

allows me to oppose



47:35

you That was my mom



47:39

passed the region. Is that why?



47:44

Yeah, yeah, got it. Please the line down oppose



47:47

oh so I can't my thumb



47:53

and my thumb



47:55

creates that opposition movements. And so we can, this is where I was saying it kind of immediately rotates. But it's also it's kind of a medial rotation is a combination of couple of actions.



48:11

So I was saying instead of calling me do rotation call it



48:15

composition. So that's the action, which is my



48:18

time hippos are videotaping. Yeah.



48:23

Yeah. I don't have like, a rotation because then you're like, Oh,



48:28

where did we find pivot joints.



48:33

See wanted to. So it allows us to rotate our heads hedge, left and right, a lot more executives to join, and we're out on my own and the radius.



48:47

pivots here pivots here as well, but not as much as it does. Up on the proximal.



48:55

Hey, um,



49:05

There's a lot of joins. Yeah, why don't you just spend some time It keeps, it's a process whole thing about that. I remember leaving the thoughtful, frustrated problem.



49:17

And then, and then it just gets better. And then you lose it. And then you gain it. And then you wake up in the middle of the night and go, Oh, that makes sense. And then you go back to sleep, and you wake up in the morning, you're like, whoa.



49:28

So it really is a process. And so I understand that.



49:36

It's a lot of information and all its kind of any language. Yes. So I think I'm going to stop there. Does anybody have any questions? Can we go over anything before



49:53

we get started get really like, the next week, as far as like Amazon or I know. We did a little A day.



50:01

Yeah. Oh, yeah, no, um



50:10

that's next week. I don't. Yeah.



50:17

Yeah. So



50:20

tomorrow we'll do some more.



50:21

Yeah.



50:23

I know. There's a lot of information that I have thrown



50:25

at you.



50:27

But we get on tables more and more and more and more and more are we supposed



50:38

to bring in our own oil or oil be provided for they have it? Yeah, we choose in the Wall Street thing,



50:43

right. You can bring your holster but we're not going to use our holsters



50:48

like next week. So I think after that, when I see the ABS arrived on that



50:53

syllabus that remind me remind you



50:58

But yeah, we don't really want people bringing in lotions and oils? We tried to say like owner neutral and reprint neutral and so we have the oil.



51:13

Yeah. I'm sure



51:22

if you weren't too sure, you can



51:28

just start doing all right.





51:44

So I will see you tomorrow right at 8am



51:49

for foundation.



51:53

We have a worksheet. I think we're



51:55

doing areas of caution. We are and then



51:58

we'll get on the table tomorrow. Okay, all right.



52:05

All right, everybody. Thank you. Have a good rest of your day and I'll do it.



52:11

Okay. Sure. Yeah. Thank you. Wait.



52:21

If I schedule something out, there's gonna be a reason.



52:28

Mostly if you're working in a restaurant



52:33

or something,



52:39

have some bad



52:40

appointments.



52:42

So make sure



52:44

you don't schedule something.



52:51

He supposed to go to his primary care but now and they they're at



52:58

Northwest neighborhood of 20



53:07

I only know it because yeah, you